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ABSTRACT

This study investigates topic units and suggests some practical applications to the teaching of composition to native speakers and second language learners. A topic unit is a structural unit beyond the sentence. It is composed of clauses and consists of two parts -- a head proposition and a set of comments. The head proposition consists of the first and sometimes second clause. It serves as topic and is joined to its comments by the "framing" function of a topic and by cohesive ties. The constituents, each consisting of one or a combination of clauses, are united among themselves on the basis of similarity. Because they are composed of clauses, topic units interact freely with sentences and with paragraphs to produce integrated texts and to offer means of stylistic variation within texts. (Author/JK)

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ON TOPIC UNITS IN ENGLISH PLANNED
WRITTEN DISCOURSE

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ABSTRACT

In addition to sentences and paragraphs, planned written discourse in English includes a structural unit beyond the sentence: 'topic unit'. Each unit is composed of clauses, not sentences, and consists of two parts: a head proposition and a set of comments. The head proposition consists of the first and sometimes second clause. It serves as 'topic' and is joined to its comments by the 'framing' function of a topic and by 'cohesive ties' as described by Halliday. The comments, each consisting of one or a combination of clauses, are united among themselves on the basis of 'similarity'. The relation between the two parts is similar to that between a sentence topic and its comment. Because they are composed of clauses, topic units interact freely with sentences and with paragraphs to produce integrated texts and to offer means of stylistic variation within texts. Although topic units are not considered a heuristic device, practical applications for some of these results may be useful in teaching composition to native speakers as well as to second language learners.

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I. INTRODUCTION

1. Purpose

The description of 'topic units' presented in this paper began as an attempt to describe paragraph structure. However, those who write about paragraphs seem to agree on only two things: a paragraph begins with an indentation, and it is composed of sentences. The search for a different viewpoint began with the assumption that 'clauses', not 'sentences', are the basic unit for constructing texts; and in the end, that assumption made it possible to recognize the presence of 'topic units' in written discourse. Thus the purpose of the paper is to describe 'topic unit', a formal structure beyond the sentence in planned English discourse.

A 'topic unit' is a small segment of text which develops a narrowly restricted statement. It is composed of 'clauses' and has a structure of its own based on a 'topic-comment' relationship. Its content is organized into two parts: a 'discourse topic proposition' (or 'head proposition') and a set of 'comments'. As an independent unit, it interacts freely with sentences and paragraphs to form longer texts.

The distinction between 'clauses' and 'sentences' here means that 'sentence' retains a traditional interpretation. It must include at least one main clause, and

that clause must actually exhibit a subject and finite verb that agrees with it. A group of words which do not meet these criteria, but which are punctuated to look like a sentence, remains a sentence 'fragment'.

A 'clause', on the other hand, is a word group that includes a single verb or predicate adjective. That is, each group which contains a gerund, a finite verb, an infinitive or a predicate adjective will be considered a clause. Such a group may function independently in the text, or it may combine with other clauses to form a single unit. Whether they function singly or in combination and regardless of the form of the verb, no clause is considered less important than another.

2. Organization

The description of 'topic units', including definitions for the terms mentioned above, is the subject of Chapter II. Examples of interaction are displayed in Chapter III, and a comparison of topic units with paragraphs appears in Chapter IV.

Although topic unit is not presented as a heuristic device, the concluding chapter, V, presents an introduction to practical applications for teaching composition; for it is possible that some of the ideas here may be useful to teachers of native speakers as well as to second language learners.

3. Method

The study was based on an examination of texts taken from short stories and novels by American authors of the 19th and 20th centuries. Each sample was limited to the first two paragraphs of its story in order to note what happened at the paragraph break. Restriction to the beginning paragraphs of the text helped to ensure that the writers started from the same point in terms of presenting and establishing referents in their composition. The use of narrative fiction had the advantage that it did not require any special knowledge of technical vocabulary or of sophisticated sentence structure that is sometimes found in scholarly writing.

A clause-by-clause analysis of each text was done, and the function of each clause as either 'topic' or 'comment' was identified. As far as possible, an attempt was made to consider each clause on the basis of this function only, and not to consider any semantic content or narrative purpose it might have.

In addition to these texts, examples from other sources, e.g., newspapers, history books and novels are presented; for they seem to provide additional evidence and confirmation for the conclusions reached here.

The following set of guide questions for the paper were derived from research in psycholinguistics and from studies on the use of topic-comment structures in discourse:

1. Does written discourse contain any formal structure beyond the sentence which can be precisely described or defined?
2. What constitutes a discourse 'topic'?
3. How is a 'topic' identified?
4. What determines the limits of a topic unit?
5. What is the status of subordinate clauses in discourse?

5. Background

The idea that texts are composed of 'clauses' is supported by psycholinguistic research. Cairns and Cairns (1976, 160-163) cite a variety of experiments and results which indicate that:

...the clause is the primary unit of language processing...The clause is the maximal unit of short-term memory....

...the surface structure clause...is the unit of comprehension...

If these conclusions are correct and if language is processed for comprehension one clause at a time, then it would seem reasonable to assume that discourse may also be created in the same fashion. With this in mind, a strategy which creates language structures that can accommodate clause-by-clause processing may also exist.

Hurtig (1977, 96) cites results similar to those of Cairns and Cairns and also discusses research which shows that long term memory stores information:

In terms of the topic or propositional nature of the discourse rather than the surface structure of the linguistic form.

That is to say, information is condensed, combined and recoded under a topic heading for storage into long-term memory. Hurtig points out that this conclusion is not necessarily contradictory to the results which indicate clause-by-clause comprehension. Instead, they are separate bits that relate, on the one hand, to how information is conveyed and processed, and on the other to how it is stored.

Storage under topic headings suggests that the use of topic structures in sentences and larger units might offer a system for creating discourse to match its storage requirements. For that reason, research dealing with the use of topic and comment relationships in spoken as well as in written discourse was examined.

Examples of 'topic', when that word means 'what the person is talking about', can be found in child language. Bates (1976, 161) argues that children use 'topics and comments' as a pragmatic system for their earliest strategy in speaking. Such a strategy produces sequences like the following (example mine):

1. Ball! (topic)
Mine! (comment)

It is usually assumed, however, that children drop this strategy as they acquire the syntax of their language.

Yet Keenan (1977, 20) gives examples of the use of topic-and-comment sequences used by adults in unplanned conversational situations.

2. My father, he's fit to be tied.

Keenan and Schieffelin (1976) also recognize topic-comment relationships in extended spoken discourse. They assume that there is a topic proposition for every utterance. Sometimes it is overtly expressed in the conversation, and at other times it is present as an underlying presupposition.

Studies of topic-comment structures in written discourse have been restricted almost entirely to the analysis of single sentences. Those studies are concerned with how messages are organized: Where does the most important, newest information come in a sentence? Is there a fixed pattern for arranging new and old information? Is 'given' information the same as 'old' information? Is the grammatical subject the same as the 'topic'? What is meant by 'topic'? These questions which are raised about sentences are the same ones that can also be asked about longer written texts.

As the questions imply, the concept of sentence 'topic', or 'theme' as it is sometimes called, has no single uniform definition which is consistently applied in discussions of discourse structure. In spite of differences, however, there remain underlying similarities in

the varying uses of the terms as will be seen below.

Gundel (1977), for instance, sees 'topic' in terms of 'what the sentence is about'. It is a variable about which some proposition is made. Example 3a below includes the comment "went HOME" (with primary stress) which is made about "John" (with less stress). Thus "John" is the 'topic', or 'what the sentence is about'. In answer to the question, "What about John?", the comment would be, "John went home."

3. a) John WENT HOME.
- b) JOHN went home.

If primary stress is shifted to "John" as in 3b, the implied question is, "Who went home?" 'Went home' (now with less stress) is the topic, and the answer is "JOHN went home." 'JOHN' in this instance is the comment. While example 3a shows that topic will often appear at the beginning of a sentence, example 3b shows that it does not necessarily do so; according to Gundel the stress pattern of the sentence also contributes to identification of the topic.

Halliday (1967, 212), on the other hand, uses the term 'theme'¹ instead of topic. For him this element is the one which comes first in the clause. It is the "starting point for a message," and stress plays no part in identifying it.

In the examples below, standard word order for

declarative sentences and questions presents what Halliday (1967, 223) considers the 'unmarked' case for 'theme'.

4. a) John saw the play yesterday.
- b) Did John see the play yesterday?
- c) What did John see yesterday?

In the declarative sentence the author must put the subject ahead of the verb, and this subject-verb unit commonly comes first in a clause or sentence. However, an option remains for placing something else ahead of the subject and verb. When a writer exercises this option, he is using what Halliday (1967, 214) calls a 'marked theme'. He is "foregrounding the point of departure for the message." Similarly for questions, if the initial element is not part of the interrogative element, it is a marked theme.

5. a) Yesterday John saw the play.
- b) Yesterday what did John see?
- c) Yesterday did John see the play?

Halliday (1967, 223)

In the examples in Chapter II 'marked theme' usage will be seen to play a role in the interaction between topic units on the one hand and paragraphs and sentences on the other.

So far only a single element has been presented as theme; on occasion, however, more than one element may be thematic. For example, subordinating conjunctions which necessarily come first in their clause are considered thematic; for they do affect the meaning of the message. Yet more than one possible arrangement remains

for the word order of the rest of the clause. This means that whatever comes next after the conjunction will also be considered thematic.

6. a) Although John saw the play yesterday...
- b) Although yesterday John saw the play...

Halliday (1967, 223)

Other possibilities for more than one theme also exist, and as many as three may occur in the same clause. In each instance they represent the author's choice to foreground a particular element in the message as its starting point.

7. a) Yesterday morning early John went home.
- b) Quietly, early in the morning, he left.

Halliday notes that almost any element may be a theme: noun phrase, adverb, verb, prepositional phrase, subordinating conjunction. Yet most others (Gundel, Enkvist, Daneš etc.) who write about topics and themes in single sentences assume that topic is a noun phrase. In spoken discourse, however, Keenan and Schieffelin (1976) as noted earlier identified topic as a proposition.

Both Gundel and Keenan and Schieffelin describe topic as 'shared information'. It must be information which both hearer and speaker can identify. For Gundel this means that it must be 'definite'. For Keenan and Schieffelin (1976, 338) it means that a speaker waits for a sign of recognition from his hearer. Thus a speaker may "try out" a topic before continuing, using a questioning

tone of voice.

8. Speaker A: ...well I was the only one
other than the uhm Fords?
Uh Mrs. Holmes Ford? You
know uh//the the cellist?
B: Oh yes, She's she's the
cellist.
A. Yes.
B. Ye//s.

For Halliday (1967, 212) theme is automatically
'shared' information because it has been named in the first
element of the clause sequence. For him it is "what I
am talking about now."

Chafe (1976, 40) has commented on the various means
by which a noun may be marked as definite by a speaker.
He offers some useful considerations about the extension
of 'definite' into 'identifiable'. The use of a definite
article or demonstrative adjective, the use of a proper
noun, or a noun with a unique referent or a uniquely
salient one--'the sun' or 'the moon'--may indicate definite-
ness to a listener. Sometimes, however, the use of a
definite article which implies shared and definite informa-
tion may not be enough for a hearer to identify the referent.
In such cases an identifying modifier which a noun carries
with it may ensure its identification. Chafe's example
(1976, 40) includes a restrictive relative clause to provide
the identification that might be missing if only the article
were used?

9. a) I ran into the mechanic
b) who fixed our carburetor last week.

Entailments may also provide identification as may prior mention in discourse. In a longer text these methods which justify a definite marking for noun phrases will be seen to contribute to making a 'head proposition' definite also.

Another characteristic that can be attributed to topics is that they are 'activated'. When Gundel (1979) uses that term, she suggests that it is not necessary for known information to be already present in the listener's consciousness when a speaker mentions it. Rather, topics which have not been previously 'activated' may become 'activated' on being uttered by a speaker. This is similar to Halliday's (1967, 212) concept of 'theme' as "what I am talking about now" expressed in the initial element of a clause.

Although the term 'activated' is not used by Keenan and Schieffelin, the process of "trying out" a topic for recognition implies that the speaker is making certain that his information is not only shared but is also actively present in the listener's consciousness. If necessary, a speaker can add extra identifying modifiers so that on being uttered the information becomes active for the hearer.

Clearly the notion of shared and actively identified information will also be appropriate for interpreting longer written texts. Whatever is presented to a reader must be

identifiable; and since a reader cannot question a writer, it must be already present in prior text or actively stated at the moment so that the reader is able to recognize it.

One of the functions of this 'definite' topic in sentences is to provide a 'limiting framework' for the comment of the sentence. That is, the topic seems to control the scope of the comment; it provides a frame of reference for it. In example 3a above, the comment can apply only to "John." Example 10, translated from Mandarin by Li and Thompson (1976, 462), contains both a subject and a topic and may make the idea of a limited framework somewhat clearer. The English style of the sentence appears in 10b.

10. a) Those tree (topic), tree-trunk
big (comment).
- b) As for those trees, they have big
trunks.

Chafe (1976, 50) notes that the comment "big" about "trunks" is limited to "those trees."

The separation of topic from grammatical subject in example 10 also points up the fact that, unlike subject, topic is not tied to its comment by any syntactic connection.

When the head proposition of a discourse topic unit is discussed in Chapter I, it will be seen that it, too, exhibits the characteristics of 'definite', 'activated' and 'frame of reference' which are commonly attributed to

sentence topics and that it too may be syntactically independent of its comments. The head proposition does not, however, state 'what the unit is about'.

It would appear, then, that a system which presents information clause-by-clause, matching the way that speech is perceived, and then arranges it under head topics for storage in memory would be an ideal way to convey a message. The next section presents just such a system as it describes topic units working hand in glove with sentences and paragraphs to convey the content of a written text.

II. THE STRUCTURE OF TOPIC UNITS

The claim made here is that planned written discourse in English is organized into 'topic units' composed of 'clauses', not 'sentences', as described in the Introduction. The clauses are labelled according to their function as 'discourse topic proposition' or a set of 'comments', and their relationship to one another is much the same as the relationship between the topic and comment elements of a sentence. Because they are composed of clauses, they are independent of sentences and paragraphs; and therefore they can interact freely with them.

The definition of 'clause' given in the Introduction has the effect of separating groups of words which actually contain a verbal element from those which do not. It also draws a line between a single word and a full clause representation of its propositional content: for example, 'when' versus 'it was at the time'. It has the effect of excluding nominalizations while including gerunds in the category of words that condition clause structure. Thus example 11 contains only one clause because "flowering" is a nominalization, not a gerund; and the single verb is 'was'.

11. The flowering of Aztec culture was the last great event in the history of pre-Columbian Mexico.

McDowell (1973,14)

A different sentence using a gerund instead of a nominalization includes two clauses:

12. a) Aztec culture was the last in the history of pre-Columbian Mexico,
- b) flowering after the Olmec, Toltec, and Mixtec.

For a writer, however, these distinctions are not totally arbitrary; for in terms of discourse, the choice of a one-word representation instead of a clause alters how much can be included in the topic proposition. It also offers certain stylistic options to a writer as he seeks ways to express his ideas, restricting or expanding the scope of the immediately following comments.

1. Head Proposition

The 'head proposition' or 'discourse topic proposition' of a topic unit consists of the first and sometimes second clause.

'Proposition' is used here in its rhetorical sense, and it simply means to "make a statement about something" (OED, 1971). It is a "statement to be discussed" (Webster, 1974). Whether or not the statement is true, or whether the writer is affirming or denying it, asserting or presupposing the statement is not considered part of the meaning of 'proposition'.

An initial reaction to the notion that a head proposition always comes first in its unit is quite likely to be, "It can't be true. Initial clauses, after all, are

often subordinate, setting a time or a place for a following narrative or specifying some other condition." While this is often so, the conditions they set are not minor ones, but controlling ones, in the sense that they limit any following comment. Thus an initial clause which serves an adverbial or adjectival function may still present a piece of information which is basic to understanding the following comments. A discourse topic proposition, then, may appear in either a main clause or a dependent one.

To take this one step farther and apply it to narrative style, the introductory clauses which furnish settings may seem peripheral to the story. However, if one considers the 'anatomy' of the discourse, every clause is an integral part of the text. Every clause functions either as head proposition of a topic unit or as a comment; occasionally it can function simultaneously as both, as will be seen below.

Because this head proposition comes first and is explicitly stated in almost every case (exceptions will be noted in the examples in Chapter III), the discourse topic proposition has been 'activated' for a reader, i.e., made consciously present in his mind.

Like the sentence topics described in the Introduction, the 'head proposition' contains information that is shared by reader and writer so that it is 'definite' and 'identifiable'. The use of a single definite noun phrase, however,

is not enough to make its message content identifiable. Both parts of the head proposition contribute to definiteness. That is, a definite noun, e.g. 'this book', 'that man', 'Mr. Jones', will still require some additional restriction placing it in time or in space or in terms of an event or describing its appearance to make it truly identifiable. Hence Chafe's suggestions for use of additional modifiers or entailments which were cited in the Introduction will be seen as methods used in making the content of a head proposition identifiable for a reader.

As a result, even an indefinite noun may be identified with the help of additional modifiers which then become part of the head proposition. In this view, 'a boy' in example 13 below is made identifiable by a following clause, and the two parts can constitute a head proposition for discourse.

13. a) a boy
b) who was wearing a brown shirt

Clause 13b makes an identifiable head, and at the same time it 'activates' the necessary information for its reader. This clause then serves the added function of providing a 'frame of reference' for the comments which follow.

14. a) Head Prop: A boy who was wearing a brown shirt
b) Comment: ran down the block.
c) C: He rushed across the street
d) C: without looking,
e) C: and a car hit him.

Each of the clauses in example 14b-e can apply only to the boy "who was wearing a brown shirt," for whatever limitation is stated in the head proposition must be applied to any comment within that particular topic unit. If a time is mentioned, then any activity must be placed in relation to it: before, after, or at the same time. It is in this way that the head proposition serves as a 'frame' or 'limitation' for the comments of a topic unit.

Example 14 above also shows that comment clauses may be syntactically independent of the head proposition. Clause 14b is not independent of the head, for it is part of the same sentence as the head proposition. However, 14c begins a new sentence; so far as sentence structure is concerned, it is syntactically independent of the head proposition. Nevertheless, 14c remains part of the same topic unit under control of 14a.

2. Comments

The second part of a topic unit is a 'set of comments', and each comment is composed either of a single clause or a combination of clauses. Each one is not only 'relevant' to the head proposition, but it is also similar to the other comments in its set.

2a. Relevance

'Relevance' has two aspects. One aspect is the requirement that a comment fit into the limiting frame of the head

as already described. It also seems to be true that relevance between the head and the comment clauses is formally exhibited by means of what Halliday (1976) has called "cohesive ties."

"Cohesion," says Halliday (1976, 4), "occurs where the interpretation of some element in the discourse is dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it. When this happens a relation of cohesion is set up, and the two elements, the presupposing and the presupposed, are thereby at least potentially integrated into a text." This relationship he calls a "cohesive tie." Such a relationship may exist between a pronoun and the noun which provides its interpretation; it may exist between repetitions of the same word, or use of a substitute for a word or by means of elliptical expressions. The cohesion lies in the relation that is set up between the two elements.

In example 15 there is a cohesive relationship between 'her' of "her funeral" in 15b and "Miss Emily Grierson" of 15a, the head proposition.

15. a) When Miss Emily Grierson died
- b) our whole town went to her funeral...

Faulkner (1959, 187)

A cohesive tie may also be accomplished by means of ellipsis. For instance, in a comment where the subject of

the verb has not been repeated, there can still be a cohesive tie between that subject represented by $\emptyset$ and the subject named in the head proposition as in example 16a and 16c.

16. a) The old woman and her daughter
were sitting on the porch...
- b) The old woman slid to the edge of
her chair
- c) and $\emptyset$ leaned forward.

O'Connor (1959, 259)

There are two ties between 16a and 16b: the repetition of "the old woman" and the use of "her" to refer back to "woman." But in 16c, the $\emptyset$ provides a tie with "woman" of 16a.

It should be noted, however, that when a $\emptyset$ representation is involved in the cohesive relation that contributes to 'relevance' between a head and its comment, the $\emptyset$ can only appear in the comment clause, never in the topic proposition clause. The reason for this is not hard to find, since it has already been stated that a proposition for written text must be presented explicitly for each topic unit. The elements of the head proposition cannot be "assumed" or "understood"; they must be definite, explicit.

The connection between the head proposition and the comment, then, depends on two separate aspects of their relationship: inclusion within the frame of the head and syntactic connections between grammatical elements in the two parts.²

2b. Similarity

The other important characteristic of comments is that they are bound to one another by means of what is here called 'similarity'. 'Similarity' stems from a writer's underlying purpose when he uses each comment as a step toward conveying his message. In the end, his purpose can usually be summarized by a single sentence. 'Similarity' means that although comments occur in a variety of syntactic or semantic forms, they also exhibit some type of unifying repetition from one clause to the next, a repetition that ties them together in a unified group.

In example 17 below, the set of predicates is united and made 'similar' by the concept of 'see' which is repeated in the phrase "could not see," "had never seen," "could tell" (where "tell" means 'see') and by $\emptyset$ in 17a where $\emptyset$ substitutes for 'in order to see'. This interpretation of 17a is invited by the meaning of the text itself. Thus the concept 'see' is included in each of the comments either by means of direct repetition, by substitutes of synonyms or by $\emptyset$.

17. a) Head: The old woman and her daughter
were sitting on the porch
b) (added limitation) when Mr. Shiftlet
came up the road for the first
time.
c) Comment: The old woman slid to the
edge of her chair, $\emptyset$
d) C: leaned forward $\emptyset$
e) C: shading her eyes from the
piercing sunset $\emptyset$.

- f) C: The daughter could not see
far in front of her...
- g) C: Although...the old woman
had never seen Mr. Shiftlet...
- h) C: she could tell even from
a distance...

O'Connor (1959, 259)

Each of these comments fits within the time and space frame of the head proposition, and each exhibits ties with it. On another level, each is also 'similar' to the others of its group on the basis of the concept 'see'.

It is quite conceivable, however, that a variety of comments which reveal cohesive ties to the head proposition and fit its limiting frame might be possible. For instance, the time frame of 18a can accommodate 18b-18f.

- 18. a) When I was 27 years old,
- b) I was a mining broker's clerk.
- c) I had broken my leg in an accident...
- d) I wore a mustache...
- e) My mother lived in Wisconsin...
- f) The United States was engaged in the
Civil War...

Yet this set presents no obvious type of similarity, and a reader might well be at a loss to understand or foresee any direction which the unit as a whole could take.

In example 19, Mark Twain has actually used 18a as a head proposition and then left the reader to discover the source of similarity for himself. The comments which Twain supplies, however, imply an extra, unstated restriction which limits them to a single aspect of the character: his status in the world at that time. Because the comments

are 'similar', the reader is able to recognize an underlying source of unity.

19. a) Head: When I was 27 years old,
 b) Comment: I was a mining broker's clerk in San Francisco
 c) C: and (Ø) an expert in all the details of stock traffic.
 d) C: I was alone in all the world...

Twain (1959, 116)

Most often, however, some specific mark of similarity is actually included in the set of comments. Example 17 above contained the repetition of a particular concept. Example 20 below shows the repetition of a particular group of syntactic features. While tense by itself is probably not enough to establish the connection between comments, a series of verbs which reveal the same tense, mood, person and number does seem to provide similarity.

20. a) Head: ...when the tall...man turned in at the gate.
 b) Comment: He did not pause.
 c) C: He did not even glance at the boys,
 d) C: much less Ø give them good-day.
 e) C: He just clumped down his... shoes one after another...

Porter (1939, 93)

The verbs here are all past, indicative, third person singular; and the subject is masculine. In 20d the gapped constituents seem to call attention to the fact that it is this set of syntactic features that is the source of 'similarity'.

With the exception of 20d, the verbs in these comments also have a kind of similarity based on their meaning. That is, they describe physical movements and gestures that would be appropriate on entering or leaving a place. While 20d fits 'entering and leaving' criteria, it is not a physical movement. Thus, the use of $\emptyset$ emphasizes what is identical in the set and marks this comment too for inclusion in the group of similar predicates.

The use of gapped constituents as a means of marking similarity is particularly useful when the message content of the clauses seems very different from one comment to the next. In example 21, the $\emptyset$ represents "went to her funeral" and points to the verb phrase as the source of similarity in a sequence where no other words or ideas are repeated.

- 21. a) our whole town went to her funeral.
- b) the men ($\emptyset$) through a sort of respectful affection,
- c) the women ($\emptyset$) mostly out of curiosity...

Faulkner (1959, 259)

Repetition which provides similarity may extend to substituting a noun for a verb as Hemmingway does in 22 where "fished alone" (22b) is replaced by "take a fish" (22d).

- 22. a) He was an old man
- b) who fished alone in a skiff...

- c) and he had gone eighty-four days now
- d) without taking a fish.

Hemmingway (1952, 9)

Or similarity may derive from the use of metaphor and implication as in example 23.

- 23. a) The grandfather, dead for more than
thirty years,
- b) had been twice disturbed in his long
repose...
- c) She removed his bones...

Porter (1959, 200)

"Dead" is followed by the metaphoric "long repose" for the 'sleep of death'. "Bones" implies the 'buried bones of a skeleton', and once again the reference is to 'death'.

Thus similarity depends on some kind of repetition. These can include repetition of a single word, a phrase, a concept or a set of features. It may be achieved by stating the word or phrase explicitly, by using substitutes which take the form of synonyms, $\emptyset$, metaphors or implications. Finally, similarity may depend on the reader's recognition of an unstated generalization to unify the comments.³ Without similarity there is no coherence among the comments of a unit; instead, there is simply a series of clauses.

2c. Single Clause Comments

Like topic propositions, comments may be composed of one or more than one clause. In a single-clause comment, the verb may take any syntactic form. That is, its form as compound verb, gerund, infinitive phrase etc. does not diminish the independence of the comment which it makes.

Its surface structure form is determined by the ordering of ideas in the text. Whether to choose a form which allows joining and integration of more than one comment into a single sentence depends on the author's overall purpose. In example 17 above there are three independent comments in spite of the fact that the three are joined in one sentence. The comments of clauses 17b, 17c, 17d are independent of each other as they refer back to the head of the topic unit. The fact that the surface form of 17c and 17d include a gerund and a compound verb without repeating the subject does not make those comments any less important or more 'dependent' than 17b, the one with the subject and finite verb.

It is true, of course, that linguists would generally accept those as separate comments although many English composition teachers might hesitate because of their form.

In example 24 probably neither linguists nor composition teachers would routinely say the comments are separate and equal. Yet the interpretation here is that 24b and 24c offer separate comments.

24. a) Head: His left coat sleeve was
folded up
b) Comment: to show
c) C: there was only half an arm in it.

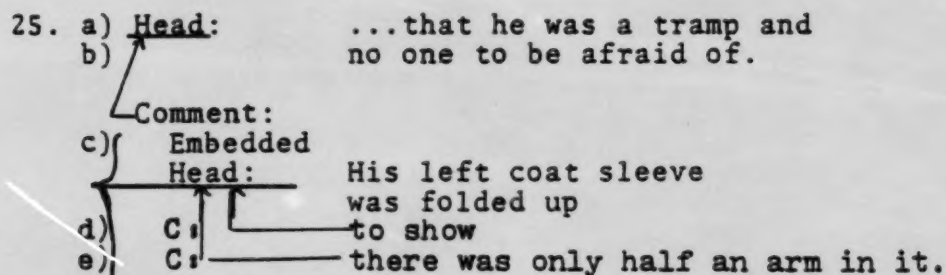
O'Connor (1959, 259)

If the set is rewritten substituting only 'and' for "to show", neither the meaning nor the relationship to

the head proposition changes for 24c. The intermediate clause, 24b, however, is not just a connection in the same way that 'and' can be. When "to show" is included it provides an additional comment by furnishing the content of 'show'. The comment is "the folded sleeve shows (something specific)." Whether the comment includes an added meaning of purpose or cause is not clear, but the meaning of the word 'show' is an addition to the message as a whole.

2d. Combinations of clauses: Embedded Topic Units

Not every clause provides an independent comment. Embedded topic units offer one way in which clauses work in combination to form comments. An embedded topic unit is a sequence of clauses which itself includes a head proposition and one or more comments. However, the embedded unit forms a combination which refers back to a head proposition that has already been established. It does not replace the preceding discourse topic proposition. Instead the entire embedded topic unit forms a single comment on the previous head proposition. In example 25 three clauses, 25c, 25d and 25e, form an embedded unit of a head and two comments all relevant to the proposition of 25a.



It can be seen from this section that only comments which are directed at propositions are independent comments in a topic unit. It can also be seen that the embedded unit makes use of a clause which is simultaneously a head proposition and a comment on a previous head. The tie, in this case 'his', connects the entire embedded unit to the head proposition of 26a.

2e. Combinations: Zero Clauses

Not every clause provides an independent comment, however. A relative adjective clause which modifies a single noun in a preceding clause combines with it to form a single unit. In this case the adjective clause is not 'relevant' to the head proposition of a topic unit. Instead it simply adds an extra detail to the previous clause in the same way that a one-word adjective would. Such adjective clauses are called 'zero' clauses and labelled '0' in the examples here.

26. a) Head: ...he was a tramp...
 { b) Comment: He had on a black town
 suit and a brown felt hat
 c) 0: that was turned up in the
 front and down in back...

O'Connor (1959, 259)

That the zero clause in 26 is not relevant to the head proposition is quite obvious, for there is no cohesive tie between it and the head proposition. It is equally

obvious that the zero clause does not distract from the direction of the comment in 26b. Thus the two combine to comment on 26a. Because it expands a previous comment which is relevant to the head proposition, it is quite acceptable in the text as a whole.

3. Boundaries

Since topic units show no formal marking of their limits, they are not always highly visible as individual units of texts. As a result any one of three factors may call attention to the presence of a new topic unit: a new head proposition, a change in the style of relevance, or a different basis for similarity among the comments. This means that topic unit boundaries are often inconspicuous in the text.

The shift from one unit to the next may come in the middle of a sentence, and it may even occur between two major constituents which appear inseparable in a sentence such as a verb and its complement. Thus when a head proposition occurs as the final clause in a sentence, it may carry the reader ahead into the next set of comments without any break in the message line. Furthermore, when the head functions as a final clause in a sentence, it may begin with a pronoun which gives it an inconspicuous grammatical form. Thus even though the head comes first, it is not always a prominent element in the text as a whole.

Example 27 below shows a new head proposition which appears in mid-sentence:

27. a) Comment ...she could tell
b) New Head: that he was a tramp...

O'Connor (1959, 259)

In the full text (example 29, p. 32) the shift from one topic to another at this point is complete. One subject is dropped and another taken up. When "old woman" and "daughter" are introduced again in paragraph 2, they come as part of new head propositions with their new limitations.

In example 28 a relative adjective clause introduces a new head proposition. Even though the head comes first, the type of pronoun tends to obscure its status as a head proposition.

28. a) Head: which was bound for London.
b) Comment: It was a long and stormy voyage...

Twain (1959, 116)

It can be seen from these examples that pronouns can occur freely across topic unit boundaries because the constituents of topic units are clauses which are also integral parts of sentences. The $\emptyset$ which marks a gapped constituent for similarity cannot, however, continue into the next unit. Instead, since it is in itself one of the marks of a set of similar predicates, it also contributes revealing the boundaries of a topic unit.

Unlike sentences and paragraphs, topic units are

perceived as a whole rather than as a beginning, a middle and an end. They are recognized as the joint product of the head proposition and its comments. Thus the way the boundaries of these clause-constituted units is determined creates the possibility of interaction with sentences and paragraphs. Interaction, then, is the subject of the next chapter.

29.

Paragraph 1

TU I

- a) Head Prop: The old woman and her daughter were sitting on the porch when Mr. Shiftlet came up the road for the first time.
- b) Limit:
- c) Comment: The old woman slid to the edge of her chair and leaned forward shading her eyes from the piercing sunset with her hand (Ø).
- d) C:
- e) C: The daughter could not see far in front of her and continued to play with her fingers.
- f) C:
- g) C:
- h) C: Although the old woman lived in this desolate spot with only her daughter and had never seen Mr. Shiftlet before, she could tell even from a distance
- i) C:
- j) C:

TU II

- k) Head Prop: that he was a tramp and no one to be afraid of
- l) Limit:
- m) Comment: Emb. Head: His left coat sleeve was folded up to show there was only half an arm in it,
- n) C:
- o) C:
- p) Emb. Head: and his gaunt figure listed slightly to the side
- q) C: as if the breeze were pushing him.

29. (continued)

Paragraph 1 (continued)

TU II (continued)

	(r) C: He had on a black town suit and a brown felt hat (s) O: that was turned up in front and down in back, (t) C: and he carried a tin tool box by a handle. (u) C: He came on, at an amble, up her road, (v) C: his face turned toward the sun (w) O: which appeared to be balancing itself on the peak of a small mountain.
--	--

Paragraph 2

TU III

	(x) Head Prop: The old woman didn't change her position (y) Limit: until he was almost into her yard; (z) Comment: then she rose with one hand fisted on her hip.
--	--

TU IV

	a') Head Prop: The daughter, a large girl in a short blue organdy dress, saw him all at once and jumped up and began to stamp and point and make excited speech- less sounds.
--	--

O'Connor (1959, 259)

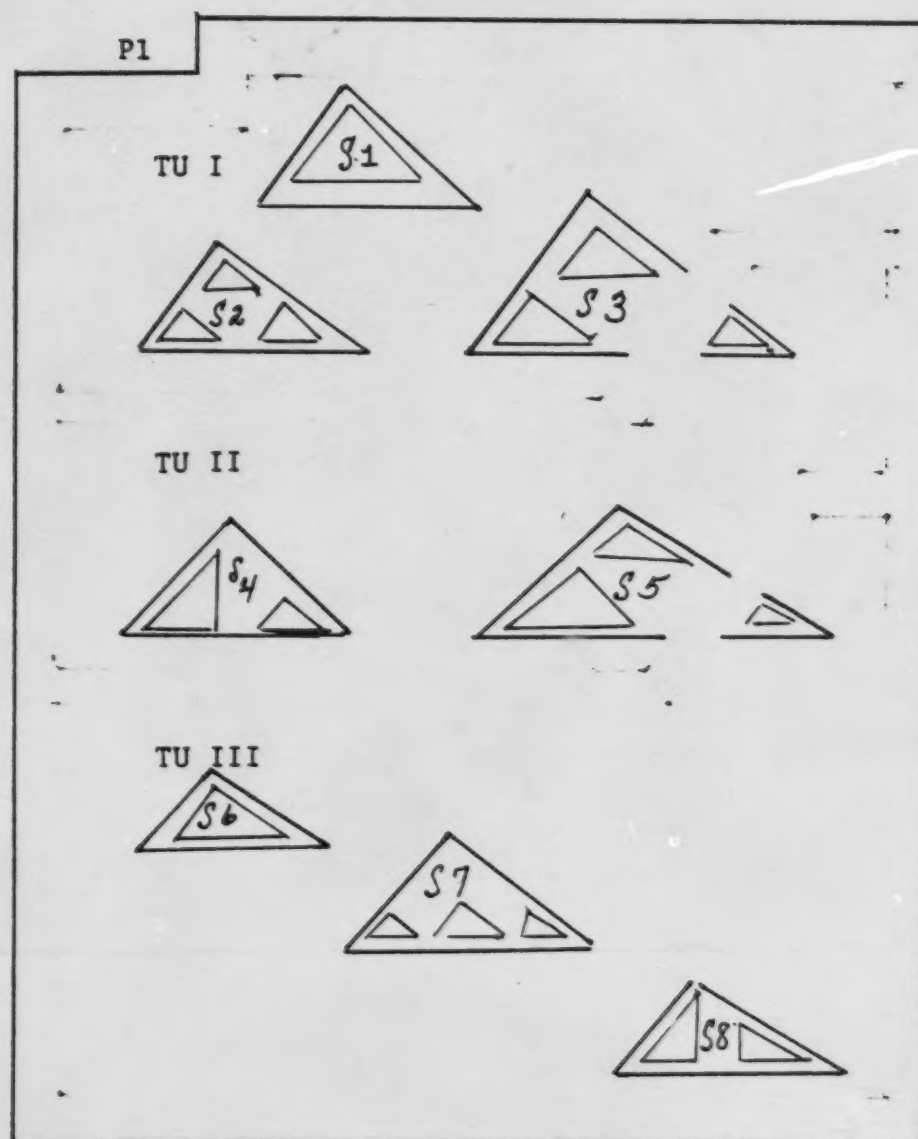
III. INTERACTION WITH PARAGRAPHS AND SENTENCES

Interaction between topic units and sentences and paragraphs occurs in truly functional ways as in the use of sentences or clauses with marked themes described below, and it also occurs in "merely stylistic" ways. Yet where to draw the line between style and function is not always clear. Neither is it clear where the distinction between interaction with paragraphs and interaction with sentences comes, since paragraphs are composed of sentences.

1. Boundaries and Topic Shifts

Interaction between the systems results from the fact that the constituents of a topic unit are clauses, and clauses can be joined into sentences in any of a variety of ways to achieve a compact expression of more than one comment on the head of a unit. Clauses joined in a sentence may serve to join two units and so include them within a single paragraph as in example 29. On the other hand, a clause which is last in a paragraph, and therefore last in a sentence, may be the first in the next topic unit. The topic unit then continues across the paragraph boundary. These conditions permit an 'interlocking' arrangement of blocks of information; that is, they are interlocked by means of sentence structure.

Topic Units interlocked by means of sentence structure:



Example 30 shows a topic unit (boundary marked by a single line) which begins before the end of one paragraph (marked by a double line) and which is carried into the new paragraph.

30.	P1	TU I	a) Comment: Rounding the right hand corner of the house under the row of chinaberry trees he walked up to the side porch
			b) C:
	P2	TU II	c) New Head: where Mr. Thompson was pushing a big churn.
			d) C: Mr. Thompson was a tough weatherbeaten man...

Porter (1939, 94)

The first two comments are directed back to a previous head. The third clause, which is paragraph final, is a new head proposition for a topic unit that extends into the next paragraph and continues with a description of 'Mr. Thompson as he sits churning'.

Interlocking the beginning and end of topic units with the boundaries of paragraphs is not limited to fiction and narrative writing. The following example is taken from a newspaper article.

31.	P1	TU I	a) C: But that doesn't mean the society has been totally uprooted.
			b) C:
		TU II	c) Head: The historical roots of the society remain.

P2	d) C:	One of the main ones
	TU II	carrying over from the
	(cont.)	imperial to Communist
	e) C:	times
	f) C:	is the belief that
		groups are more import-
		ant than individuals.

Goo (1979)

The very fact that a topic unit can extend across the paragraph boundary may contribute to the fact that pronouns are not blocked there. In the next example, the new paragraph begins with a pronoun in a new, not continuing, topic unit. A reader, however, might easily interpret it anaphorically before he realizes the shift and constructs a new topic proposition for himself.

32.		a) Head:	to see the inside of her house,
	P1	TU I	b) Comment: which no one save an old man-servant had seen in at least 10 years.
		TU II	
	P2	c) Head:	It was a big squarish house
		d) Comment:	that had once been white...

Faulkner (1959, 187)

The new head "see the outside of her house" is not specifically stated, but the new comments are in contrast to the preceding ones. Thus by beginning the paragraph with a pronoun, the full burden of newness in the next topic unit falls on the identifying part of the clause and the new comments.

The interweaving of the beginning or ending of a topic unit can take place within paragraphs as well as between them. Example 29 (p. 32) shows a topic unit which starts in mid-sentence and ends in mid-sentence. Allowing a new unit to begin in the middle of a sentence also allows two apparently unrelated sets of information to be tied together to make a single paragraph. Used in this way, the junction may help to call attention to a relationship between the two sets of information, i.e., a relationship which only becomes clear as the text proceeds.

Joining in mid-sentence also makes use of the grammar of the sentence itself to provide a tighter connection between sets of information. That is, the first part of the sentence helps to restrict what can come next and make it seem natural in the text. For instance, example 29 joins two quite distinct units with "she could tell/that he was a tramp..." Although other possibilities for the second clause are conceivable, the choices are limited to 'the things she could tell about the man while she was sitting on her porch'. Nevertheless, the choice for the following clause cannot usually be restricted to exactly one possibility. The difficulty in anticipating what is to come probably accounts for the presentation of a new head proposition in each topic unit.

When a topic shift occurs at the end of a sentence or at the end of a paragraph instead of in the middle, there are fewer restrictions on the next unit, and the new

subject cannot be predicted. For example, the end of paragraph 1 in example 19 (p. 21), "I was alone in all the world," does not predict or even suggest the possibility of a sequel about 'sailing on the bay'. Yet the second paragraph begins with a topic unit about sailing.

33. a) Head: My time was my own after
the afternoon board on
Saturdays,
b) Comment: and I was accustomed
c) C: to put it in on a little
sailboat on the bay.
d) C: One day I ventured too far
e) C: and was carried out to sea.
f) C: Just at nightfall, when hope
was about gone,
g) C: I was picked up by a brig...

Twain (1959, 116)

2. Clauses with 'Marked Themes'

Example 33 in the section above shows another type of interaction which depends on the use of a clause with a 'marked theme'. 'Theme', as mentioned in the Introduction, is Halliday's term for the "initial element in a clause," and it becomes a 'marked theme' when a writer chooses the option of foregrounding an element which grammatically would be equally as acceptable at another point in the sequence of words in the clause.

The head proposition of 33 begins with "my time." Clause 33d begins with "one day," a 'marked theme'; for "one day" could optionally appear at a later point in its clause. In this instance it functions as a repetition of the theme of the head proposition; and by its use

as theme, it directs the reader's attention back to the head of the unit. It serves to keep the reader's attention on "my time" rather than permitting it to slip to the grammatical subject which is being repeated from clause to clause. In 33f the marked theme, "just at nightfall," does the same thing. Both of these themes refer to concepts which are sub-parts of the original theme, and for this reason they reaffirm the time element of the head proposition as the dominating limitation in this unit. In both instances, the marked themes by their use at the beginning of their sentences, as well as their clauses, seem to function as sentence adjuncts and to extend over the entire sentence. Thus they affect both clauses in their respective sentences; and as a result, they are considered here as part of the means by which sentences interact with topic unit. The choice of a marked theme in this instance is not just a "stylistic variation," but a special use of a structural tool for composition being used to keep the head of a topic unit 'active' in the reader's mind.

This tool, 'marked theme', also seems to offer some explanation and justification for the way journalists divide their material. It is often claimed that newspapers make use of an almost sentence-by-sentence style of paragraphing. Example 34 shows how a clause with a marked theme can be used at the beginning of a new paragraph

to keep attention on a continuing head proposition. Here a single topic unit is being split to make two paragraphs, and the break comes in the middle of a set of comments. The meaning and continuity are quite clear as one topic unit spans two paragraphs.

34.	TU I	P1	a) Head:	The last and most complete of the Dead Sea Scrolls has finally been published
			b) Comment:	and discloses remarkable new evidence about the origin of Christian teaching on sex, marriage and divorce, a Biblical scholar said yesterday.
		P2	d) C:	Called the Temple Scroll
			e) C:	because a large part of it deals with reconstruction of the temple in Jerusalem,
			f) C:	the newly published document sets forth a code of behavior
			g) C:	forbidding divorce and polygamy.

Harnett (1979)

3. Zero Clauses

Baker (1966, 63) in his book on English composition remarks, "If your end sentences (in paragraphs) bring him (your reader) briefly to rest, he will know where he is and appreciate it." While his statement leaves a student to wonder just how to bring a reader to rest, topic units provide a means to that end: the zero clause. When a paragraph ends with a zero clause it has the effect of creating a 'space' between the previous head proposition and

the introduction of a new one; it offers a brief pause.

29. (excerpt repeated for convenience)

29u) Comment: He came on, at an amble, up her road,

29v) C: his face turned toward the sun

29w) Zero: which appeared to be balancing itself on the peak of a small mountain.

29x) Head: The old woman didn't change her position...

4. Style and Interaction

In contrast to the use of clauses with 'marked themes', example 35 offers a topic unit which is almost invisible as it begins with a relative adjective clause, "which was bound for London." The writer has carried the reader into the next section before the period can occur. The transition across the boundary is so smooth that a reader may not even notice it, an ideal situation from a writer's point of view. Nevertheless, everything has changed: clause style, time frame, space frame and hero's status.

35. a) Head: which was bound for London.
 b) Comment: It was a long and stormy voyage,
 c) C: and they made me work my passage as a common sailor without pay.

These clauses use no marked themes; in fact, they present the least marked of the unmarked choices. "Which" is a grammatical subject, a normal unmarked theme in its clause. But grammatically it is only a relative pronoun and semantically it must be identified elsewhere. In this

unit it is anonymous. The next clause theme and grammatical subject is an empty 'it' (or if it is not empty it is cataphoric), and the third theme is an unidentified 'they'. These unidentified subjects effectively direct attention away from the previous head topic and onto a new set of comments realized in "bound for London," "voyage" and "work my passage." There can be little question, however, that this set functions independently about a new head to shift attention away from 'San Francisco and a prosperous young man' to 'London and poverty'. The result is that this topic unit provides a transition between a previous topic unit and a following one, neatly and inconspicuously from a stylistic point of view, completely and efficiently from a grammatical point of view.

Omission of a discourse topic proposition in the first clause is another stylistic option available from topic unit structure. The newspaper excerpt just presented simply split a set of comments. It is possible, however, for a writer actually to omit a head, and the effect can be to confuse or mislead a reader. Such examples will be found in the final chapter of this paper. Yet the option still remains for a skillful and practiced writer to intentionally leave the topic too vague for identification as in the next example.

36. a) Head: It was a small matter
 b) Comment:
 { Emb. Topic Unit:
 { Head: His wife said

- | | | | |
|----|---|----------|-------------------------|
| c) | } | Comment: | she was willing |
| d) | | C: | to spend a little money |
| e) | | C: | to have him home. |

The adjective in "a small matter" is the only word that contributes toward making an identifiable head in 36, for there is no other limitation for comments. As a result, the head suggests a puzzling situation, a mystery, intrigue; and the reader is left uncertain about what is happening for the moment. The uncertainty is gradually relieved when the similarity of the following predicates provides enough information to guess at some kind of potential head. Just as in the earlier example of a descriptive paragraph (Example 19, p. 22), here the reader must construct a head proposition abstracting the information from the series of comments.

In this case, the reader will probably be aware that he is deciphering the head for himself as he reads; for the only thing definite here is that, in keeping with a mystery, the plot of the story itself is a mystery at this point. Thus consciously avoiding presentation of a clear head in the first clause is a stylistic option, an option provided specifically by topic-comment structure.

Topic units also create other options for the way texts can be constructed. In 37 below, topic unit arrangement makes the combination of long clauses smooth and easy to read. The series of clauses with all but the first instance of the grammatical subject deleted almost

begins to look like a sentence in a topic-prominent language like Mandarin (Li and Thompson, 1976, 462). The clauses contain similar predicates whose relevance to a single head means that there is no need for a repeated subject. Such deletions of a subject in a series of more than one very long clause would probably be much less likely in spoken English. Written English, however, by holding the entire series in view at one time, ensures that the subject, in this case part of the head of the unit, can be identified.

37. a) Head: The first Bourbon king of Spain, the sixteen-year-old Felipe V, reluctantly forsook the salons and gardens of Versailles on December 4, 1700,
 b) Comment: rode south on a white horse to the Pyrenees and beyond,
 c) C: and entered a jubilant Madrid after a journey of fifty days.

Bergamini (1974, 13)

On the other hand, the acceptability of short sentence fragments is equally well accounted for by topic unit structure. Although they are more commonly found in spoken than in written discourse and although they violate the rules of grammar given in most English textbooks, sentence fragments in the work of recognized writers are not hard to find. In 38 the author incorporates a comment on an earlier head, "the district of Santa Cruz," into his topic unit by punctuating a fragment as if it were a sentence.

38. a) Head: This district of Santa Cruz
was then the most elegant of
Seville.
b) Comment: Tortuous white streets, with
large houses.

Maugham (1935, 1)

Had Maugham chosen to write a "proper complete sentence," perhaps 'The streets were tortuous and white flanked by large houses', it would have abandoned momentarily the topic of the unit in favor of attention on a much less important lower topic. The punctuation in this instance is a natural use of topic unit structure to keep attention on the head of the unit.

Another example from a popular writer of spy stories shows a sentence fragment and an adverbial clause each punctuated as sentences.

39. a) Head: The colony had therefore become
for him
b) what it was already for the rest
of the journalists:
c) Comment: an airfield, a telephone, a
laundry.
d) C: Occasionally--but never for long--
a woman.
e) C: Where even experience had to be
imported

A different type of interaction based on the use of punctuation is shown in 40. The colon of 40c is used to delay the end of a sentence as Melville proceeds to tie the beginning of a new topic unit into his sentence --and so into a paragraph.

40. a) Head: set of men
 b) Comment: of whom as yet nothing that
 I know of
 c) C: has ever been written:

d) Head: I mean the law copyists or
 scribes.

Melville (1959, 64)

5. Clause Structure and Comprehension

In the Introduction, reference was made to research on how texts are processed for comprehension and how they are stored in memory. Arranging discourse into units headed by discourse topics should facilitate clause-by-clause processing of the surface structure of texts. Furthermore, the fact that the head proposition acts as a 'topic' heading means that it can also act as a label for storing a series of comments that go beyond the limits of a single sentence.

Interpreted according to the traditional view of grammar, example 41 shows a main clause split to include two modifying clauses, 41c-d, inserted between the subject and the predicate. The view of texts as a sequence of sentences implies that a reader waits for the predicate in 41e to understand what went before.

41. a) Head: there is a road...
 b) Embedded head: Anyone
 c) who wishes
 d) C: to go from the inland valley to
 the coast
 e) C: must take the road...

Steinbeck (1947, 3)

An interpretation based on topic units, however, suggests that a reader deals with the parts in the order that they come, processing the beginning as a framework for the remainder. In 4l the first noun of the embedded unit is indefinite; the next clause, "who wishes," is too indefinite for a head proposition. It provides insufficient limitation for comments. The combination of 4lb-c-d, however, is definite and can serve as a head. The result is that 4le acts as a comment on the combination, and the whole embedded unit refers back to the prior head. The reader is able to process each clause as it comes by relating it to the head proposition without waiting for the end of the sentence. It has become part of the larger chunk of information to be stored under "there is a road..."

6. Summary

The chief property of topic units then is that they are composed of a sequence of clauses which function independently of any punctuation device. They interact internally with sentences by using marked themes to maintain attention on the head proposition of a topic unit. In terms of punctuation, topic units can include sentence fragments punctuated as if they were whole sentences without any loss of comprehensibility.

At their boundaries topic units interact with sentences when two units are joined in the middle of a sentence as

a means of achieving greater coherence between them.

Topic units interact also with paragraphs as they extend across the paragraph boundary. This probably contributes to the fact that pronouns in English may continue across paragraph boundaries.

Topic units have their own specific rules: A head proposition comes first. The head is "limited." All members of the unit comment on the head. Beyond that, the unit as a whole is not contained by any sentence or paragraph boundaries.

IV. PARAGRAPHS VS. TOPIC UNITS

The description of topic units in Chapter II showed that each one develops a single aspect of a narrowly limited piece of information. When the invisible boundary of the topic unit occurs, the first head proposition is dropped; a new one appears; and the similarity of the comments changes.

In terms of text, ideas are not interwoven, started, dropped and picked up again within the topic unit. Rather this is the level where topics and details are expanded. This means that the same discourse proposition does not normally continue into a new unit. Instead some new identifying-limiting phrase will be added so that the comments which accompany a head will be restricted in a new and different way.

These units can be arranged singly or in combinations to produce sections of text within and beyond the paragraph. If a unit begins at the end of a paragraph and extends into the next, then part of a single topic unit may be present in each of two paragraphs.

Paragraphs, on the other hand, do not seem to present characteristics which can be described and labelled so clearly. Paul Rodgers (1966) makes the questions about the nature of paragraphs quite explicit:

As commonly defined, the paragraph is a group of sentences which develops the single idea conveyed in its topic sentence...What is an 'idea'? Does a noun phrase express an 'idea,' or must every idea be a proposition? Must the topic idea be carried as the major predication of the topic sentence? If not, then how does one distinguish topic material from its context? Can the topic be merely suggested as by a question of exclamation or negative declaration or figure of speech, or must it be spelled out? If the paragraph is a group of sentences, how small can the group be? Can a paragraph properly be conterminous with its own topic sentence?

1. Topic Sentences

Rodgers implies by his questions that all paragraphs have topic sentences, and many would agree. Christensen (1967, 112-13) is explicit in his belief that paragraphs almost always have topic sentences somewhere. Furthermore, he says, that the top sentence of a sequence is almost always the topic sentence for a paragraph. Baker (1966, 63) states, "If a topic sentence covers everything within your paragraph, you are using your paragraphs to maximum effect...", and the clear implication is that some kind of a topic sentence is present. Kaplan (1966) indicates that a paragraph begins with a topic sentence, "a general statement of its content."

Braddock (1974) contradicts this common opinion when he shows that fewer than one out of seven (13%)

of all paragraphs which he analyzed included topic sentences of any kind. He included in his considerations other locations than initial position in the paragraph, and he considered as well the option of a "composite" topic sentence formed from bits and pieces of various sentences contained within the paragraph. He found that in some instances "the samples contained no topic sentences. In some, a single topic sentence governed several paragraphs. In others the indentations seem, in his words, "quite arbitrary."

While the presence of an explicit topic sentence for every paragraph remains in doubt, a topic unit does include an explicit head proposition in almost every case. The head, however, is not the same as a topic sentence. It is not a summarizing statement for the unit but an initial framework. A summarizing statement would more closely resemble a one-sentence precis for that unit, a synopsis of its head and comments. It would be a summary that is nowhere stated in full but is derived by abstraction from the content.

2. Major or Minor Predication?

This contrast between topic sentence and head proposition shows that the 'idea' of a topic unit is not carried by any single predication, either major or minor.

In Chapter II it was mentioned that the head proposition of a topic unit might well occur in an introductory

clause setting a time or place. Such clauses are usually adverbial in function and syntactically dependent, i.e., subordinate clauses. Thus, when Rodgers' question about the use of minor or major predications for topic material is applied to topic units, it is clear that a head proposition may occur in a subordinate clause.

3. Recognition of topic

Rodgers asks how topic material can be recognized. Many (Kaplan, Christensen and others) would say that paragraphs usually have an initial topic sentence. Many others, however, would not agree. The mere fact that Rodgers finds it necessary to ask this question suggests that the answer for paragraph is not clearly defined.

If this question is asked about topic units, however, there are concrete answers. Head proposition which comes first is recognized, as we have already seen, because the comments it controls are tied to it by means of relevance and form a set of similar predicates. The relationship between the two parts calls attention to the presence of a head proposition. This relationship is sometimes reinforced and made more obvious by the use of marked themes in the comment clauses, for a marked theme is a subpart of the theme of the head proposition.

4. 'Suggested' topic?

Rodgers asks whether the topic of a paragraph may be

merely suggested. Braddock (1974) seems to believe that it can, for he finds topic sentences which are composites of existing sentences or abstractions from them.

For a topic unit, however, head proposition seems almost always to be stated explicitly except when an author omits it for special stylistic reasons. Example 36 from a mystery story showed this usage.

5. Paragraph: How Small:

How small can a paragraph be and can it be co-terminous with its own topic sentence? Again Rodgers' questions do not find clear-cut answers when asked about paragraph structure. But once again, when those questions are asked about topic units, there is a definite answer. A topic unit may be as small as two clauses: one head proposition and one comment.

6. Groups of sentences

These questions which Rodgers has posed finally lead us back to his initial statement, "...the paragraph is a group of sentences which develops the single idea..." (underlining mine). The two underlined phrases mark the most troublesome problems of all.

It is difficult of course to consider paragraphs apart from sentences, for paragraphs do indeed begin and end where sentences begin and end. Thus even those who look for formal structure in paragraphs usually retain a

sentence-based approach. Chief among the structural studies which have been done are those of Young and Becker (1967), Koen, Becker and Young (1967) and Christensen (1967).

Young and Becker adopted a tagmemic approach to study the surface structure of text in extended discourse, for they recognized that grammatical constraints often extend beyond a single sentence. Their consideration of morphemes, syntax and rhetoric results in a multilevel hierarchy of the elements of a text. Metaphorically the morphemic 'particles' combine into syntactic 'waves' which create the rhetorical 'field' as the 'flow' into one another.

The interrelationships produce groups of sentences which form developmental chunks in consistent patterns: Topic, Restriction, and Illustration, or Question and Answer, or Problem and Solution. The chunks, however, are seen as combinations of sentences; and in the examples the beginnings and endings are seen to flow into one another.

Koen, Becker and Young (1967) also assumed that there are three systems at work: grammatical, lexical and rhetorical. They asked students to indent for paragraphs using a text in which the experimenters retained grammatical markers (plurals, tense) and rhetorical markers (conjunctions, both coordinate and subordinate). Thus sentence structure was retained. Lexical items, however, were replaced with nonsense words. The aim was to see to what extent

students would recognize paragraph boundaries. The authors reported substantial agreement among the students and noted that the choices for indentation seemed to lean most heavily on grammatical cues, and least heavily on lexical cues. In interviews with the students they discovered that the beginning of a Topic-Restriction-Illustration pattern (the same pattern reported by Young and Becker above) was the single commonest reason for indenting.

Christensen (1967) in his sentence-based approach to paragraph structure, views every paragraph as a sequence of 'coordinate' or 'subordinate' sentences. By 'coordinate' he means a sentence which is at the same level of generality as the preceding one. A subordinate sentence is one which is less general than its predecessor. Christensen notes that transitional sentences in particular do not always fit into this pattern. Yet even apart from that qualification, there are questions about how to determine the level of generality for other sentences as well.

Because his theory has been widely used in teaching programs, an example of Christensen's treatment is given in example 42 for comparison with the topic unit treatment shown in example 29. Where the level of generality seems ambiguous, a question mark appears by its number.

It is not always clear in 42 which part of the sentence determines the level of generality. Christensen freely acknowledged that transitional sentences raise questions,

but S4 in this example is transitional only in terms of topic units. Its mid-paragraph position should not raise problems for the paragraph. The status of the sentences below S4 also seems ambiguous. By dividing the sentences into their constituent clauses according to the method of topic unit structure, however, it becomes possible to see that one part of a sentence may be a comment on an old topic, and the next part of the same sentence may introduce a new unit. The transitional sentence is out of place and confusing only when one tries to interpret the entire sentence as part of a single unit. This is exactly the problem with the sentences questioned in the previous example. Christensen, of course, has attempted to deal with a fact: paragraphs are composed of sentences. He has tried to show that paragraphs do have a structural form. The results, however, seem to show that Halliday (1976, 2) was correct when he said that sentences combine to make "units not of form, but of meaning."

42. Christensen: Coordinate-Subordinate Levels of
Generality

Level of generality

- | | |
|-----------------------------------|--|
| 1 | S1 The old woman and her daughter were sitting on their porch when Mr. Shiftlet came up the road for the first time. |
| 2
Subordinate,
less general | S2 The old woman slid to the edge of her chair and leaned forward shading her eyes from the piercing sunset with her hand. |

2
Coordinate to
S2.

S3 The daughter could not see far
in front of her and continued
to play with her fingers.

1?
Possible topic
sentence?

S4 Although the old woman lived in this
desolate spot with only her daughter
and had never seen Mr. Shiftlet before,
she could tell even from a distance
that he was a tramp and no one to
be afraid of.

3?

S5 His left coat sleeve was folded
up to show there was only half an
arm in it, and his gaunt figure
listed slightly to the side as
if the breeze were pushing him.

3?

S6 He had on a black town suit and
a brown felt hat that was turned
up in the front and down in the
back, and he carried a tin tool
box by a handle.

3?
Does this sentence
expand the level of
generality up to 1?
Or is it the same as
the previous sentence?

S7 He came on at an amble up her
road, his face turned toward the
sun which appeared to be balancing
itself on the peak of a small
mountain.

7. A single idea?

The other troublesome phrase in Rodgers' initial sentence, "develops a single idea," is widely accepted as a description of what paragraphs do; yet earlier examples have already thrown doubt on that. Using that interpretation, example 29 with minor changes should have been structured into two paragraphs as in 43 below.

43. (adapted from Example 29, p. 32)

P1

a) she could tell

b) that he was a tramp.

P2

c) He did not look like

d) someone to be afraid of...

The effect is to create greater separation between the two 'ideas' and to reduce the emphasis on the relationship which exists between them. The single paragraph, on the other hand, retains a visible connection between the two, inviting recognition of the unity of the whole.

In his book, Baker (1966, 61) speaks of paragraphs as built of "blocks of concrete ideas." Does "concrete idea" mean a single idea narrowly defined? Brooks and Warren (1958, 267-8) state, "...paragraphs are genuine units of thought...for a paragraph undertakes to discuss one topic or one aspect of a topic." The question remains: How much is a 'unit of thought'?

Stern (1976) tells us that his experiments asking groups of adult students to paragraph a single particular text showed that they did not agree about where the paragraph indentations should come. Stern implies that the lack of uniformity suggests there really is no clear guide as to what determines a paragraph limit: "...nearly all of these possible divisions (provided by his students) seem justifiable--they feel 'right'."

Similarly when a group of students at the University of Hawaii was asked to punctuate the text of example 29, they did not agree with the author's punctuation. Fourteen out of sixteen began a new paragraph with the sentence that includes the transition from topic unit I to II. That is, they interpreted the material as two distinct sections

appropriate for separate paragraphs. The implication is that they probably did so on the basis of the 'one idea' concept.

Instead of asking whether a paragraph develops a single idea, a better question might be to ask how broad or how narrow an idea may be contained in the paragraph.

Example 44 (p. 61) presents three distinct topics which actually occur in a single paragraph. Each of them functions as a separate stage in the development of a longer paragraph. By its end, the paragraph has presented a new status for the hero of the story. In terms of development of a 'single idea' it is quite clear that the subject mentioned at the end of the third topic unit, 'life in London with no money', is not 'what the paragraph is about', for there are other 'ideas' in this paragraph: 'sailing on the bay' and 'travelling to London'. Clearly it would be difficult to maintain that this paragraph discusses only one idea; nevertheless, it is equally impossible to deny that it has a unity of its own. Generalized into a topic sentence, that unity might be expressed, "It came about that I found myself in London with no money." Then 'how it came about' leaves room for the content of the first two topic units.

On the basis of these examples, it seems clear that a paragraph may include more than one 'idea' if that phrase

44.

TU I

- a) Head Prop: My time was my own after the afternoon board on Saturdays, and I was accustomed to put it in on a little sailboat on the bay.
- b) C:
- c) C:
- d) C:
- e) C:
- f) C:
- g) C:

TU II

- h) Head Prop: which was bound for London.
- i) C:
- j) C:

TU III

- k) Head Prop: When I stepped ashore in London my clothes were ragged and shabby, and I had only a dollar in my pocket.
- l) C:
- m) C:
- {n)
o)
p)
- Emb. Head: This money fed me and sheltered me 24 hours. During the next 24 I went without food and shelter.
- C:

is understood in a restricted sense. On the other hand, the paragraph unit has the advantage that it can show--can actively display--a set of topic units in such a way that a reader knows the author intended the content to be interpreted as a whole. The separate parts developed within it are expected to lead to some larger unity. In a similar fashion, topic units that span the paragraph boundary are employed to emphasize a tight relationship between the paragraphs so that the connection between them is strengthened.

Rodgers, for his part, sums up his view of paragraphs this way: "About all we can usefully say of all paragraphs at present is that their authors have marked them off for special consideration as stadia of discourse. But their decision to indent may be taken for any one (or more) of at least half a dozen different reasons. Though all good paragraphs are distinct stadia, not all stadia are paragraphs."

With reference to his sample text, Rodgers points out that a stadium "is allowed to straddle two paragraph breaks, exercising squatter's rights in paragraphs centered on other topics--to the dismay of traditionalist critics." In this instance, he seems to be describing topic units rather than paragraphs; for topic units can straddle paragraphs when an author wishes.

Rodgers continues, saying that the author of his sample

"also does just the opposite, combines smaller stadia into a single paragraph." This is exactly what Mark Twain does in example 44 as discussed above. Once again Rodgers' remark could be about topic units.

Rodgers goes on, "Plainly a stadium can be recognized without being punctuated as a paragraph." This statement is clearly one that is appropriate for topic units. However, except to defy paragraph boundaries, Rodgers does not give any other qualifications for a 'stadium'. He does not see it as a structural unit; he does not state what actually constitutes a stadium; nor does he provide any restrictions for it. Yet it is obvious that what he perceives as a stadium of discourse seems to be an intuitive recognition of 'topic unit'.

8. Summary

To summarize, it still seems that the only definite description that can be supplied for paragraphs is that they are made up of sentences, and they begin with an indentation. It is not always clear where the beginning or the end should come. Neither is it completely obvious how much can be included in one. On the other hand, a fairly precise description can be given for topic units. The location, function and relationship of their constituents can be described. Indeed, it often seems that the description of topic units has been mistakenly applied

to paragraphs. Finally, the description of topic units seems to offer at least one specific contribution to the understanding of the paragraph: Indentations do not come at random. An indentation always comes at a clause boundary. It is invited by one of several considerations: topic unit boundary, embedded topic unit boundary or by a clause which begins with a marked theme.

V. CONCLUSION

1. Applications for Teaching

Although there has been no attempt to work out a formal program or methods for teaching composition, a few examples are given here to show how recognition of topic units might be helpful in analyzing problems in composition. To the extent that these ideas are of value, they should be equally so for the teachers of native speakers as for the teachers of students learning English as a foreign language.

The first step in putting this information to use will be to learn to recognize topic units in written texts. This may require some practice however; for it requires reading without considering punctuation--suspending one's 'sense of sentence'. Nevertheless recognizing the unmarked outline of a topic unit, while it takes practice, is necessary.

It will soon be realized that a topic unit is a unit of the whole. It is recognized after the fact on the basis of its whole structure. In each of the next examples there is a single specific problem within a topic unit, but the reader will see that it is not diagnosed on the basis of a single violated rule. Instead, the diagnosis is made in terms of the interaction of the parts of the unit.

Thus the holistic approach will take into account all of the characteristics of topic units.

In 45 the problem will be understood in terms of the head proposition: Is it definite? Where are the comments?

- 45. a) After taking care of a child three months old
- b) who was sick in a hospital
- c) where I was working
- d) to my surprise his mother told me...

The first clause, 45a, should be the head proposition; the next, 45b, is a 'zero' clause and should be part of the head. Then the first comment, 45c, should reveal a cohesive tie with the head. Here it should be remembered (Chapter II) that 'relevance' between a head and a comment cannot depend on $\emptyset$ in the head. Yet in 45a the only mention of 'I' is by inference of $\emptyset$. Since one cannot assume that it was 'I' who was 'taking care of' there is no tie between 45a and 45c.

A second look at 45a suggests that it is not 'definite' enough for a head proposition. "Taking care" has no subject, and "after" has no point of reference to make it identifiable. The problem then is not that the comment of 45c is inappropriate, but that the head proposition is somehow inadequate.

If the order of the clauses is rearranged, putting 45c first, then the section does have a definite head. 'I', a definite pronoun, is identified as "working in a hospital." Then the $\emptyset$ of 45a does constitute an appropriate tie to

the newly reordered head.

- 45A. c) I was working in a hospital
 a) (Ø) taking care of a three month
 old sick child...

This identification of the head proposition is verified as the text continues with "to my surprise...." in 46d. "My" supplies a cohesive tie to the 'I' of the new head.

46. d) to my surprise his mother told me
 e) "I'm not going to thank you
 f) because I wish
 g) the child had died."
 h) I was shocked
 i) and curious...

The marked theme of 46d, "to my surprise," seems a little awkward in this mid-sentence clause. Smoother English would probably result from 'I was surprised'. Here topic unit structures can give some reasons for this preference beyond "Awkward!" or "Better style might be..." First, it may be helpful to remember that a 'marked' theme repeats some part of the head proposition. A 'marked theme' is especially useful when there is a need to stress that the central emphasis of the head proposition does not depend on its grammatical subject, but on some other part of the predication. In this case, however, the grammatical subject is the important part, and the tie relates to it. There is no need to reduce the emphasis on the subject in favor of some other element in this comment. In fact, the use of 'my' instead of 'I' tends, in this example, to obscure the tie to the head. By

changing to 'I was surprised', however, the comment asserts that tie more forcefully. Thus the concept of 'relevance' not only helps to identify the head but to justify the choice of style for the comment.

That is still not all. There are two more comments, "I was shocked" and "(I was) curious," which are also relevant to 45a, and the change of 46d to 'I was surprised' has the effect of pointing out its 'similarity' to these later comments. The three now form an obvious 'set of similar predicates'.

One further effect of these changes is that the original, very long sentence is now divided into two; and a separate clause which functions as the head of an embedded topic unit has been created. Two 'single ideas', 'my reaction' and 'what she said', have been separated; but the whole set of 47a-e comments on the previous head of 45c.

- 47. a) Comment: I was surprised
- b) Emb. Head: when his mother told me
- c) C: I'm not going to thank you
- d) C: because I wish
- e) C: the child had died.

In the next example a different problem appears as three potential head propositions occur one after another almost as a list. They are not comments on a prior head, and neither do they carry any development of their own. The problem is first recognized because, as the series of clauses continues, there seems to be no real similarity

among them. That is, one is a statement about two kinds of worlds, one is a question addressed to an unseen reader and the third is a statement about what 'nobody wants'. There is a central core in 'world' which suggests that there might well be three topic units here to be united in a single paragraph.

48. a) These two worlds are very contrastive
 b) Which world are you living in now?
 c) I am sure
 d) that nobody wants
 e) to live in the latter world.

The opposite problem, 'intertwining' ideas within a topic unit, appears in example 49. Three ideas are started, dropped and taken up again as the author writes about 'planning for marriage', about her 'future happiness' and about 'what the wedding day will be like'.

49. a) I have to start worry
 b) to decide my mind
 c) about the May marriage
 d) when the time goes on.
 e) After a few years I will become a beautiful bride with a nice dress
 f) and walk through the fragrant smells way
 g) with the heart go pit-a-pat.
 h) That day is a happiness day in my life.
 i) I can't have two or more opportunity like this kind of marriage.
 j) After I finish the wedding match with the excitement music...

After 'worrying about getting married' in 49a-d there are no comments about what choices or specific things are to be decided. Instead, a new head about a bride and comments about what the wedding day will be like come next. But the set of comments which begins with a description of

a bride shifts to commentary on 'happiness' in 49h. Thus the comments are not 'similar', for 'happiness' and the actual events of the wedding day are two separate aspects of the subject which should probably be treated in separate topic units. A return to the original statement "to worry to decide my mind" comes next as the author comments on making a proper decision with "I can't have two or more such opportunity." The example ends with a shift back to the wedding day itself in a reference to the ceremony and the music.

What all of these examples show, then, is that a topic unit functions as an integrated whole. A problem cannot usually be isolated by looking at a single clause or by considering a single characteristic of topic unit structure. One identifies the head not only in terms of its position but also in terms of its relationship to the comments. The comments are identified because of their relationship not only to the head but also to each other.

Problems like the ones described above usually are seen as the result of faulty organization, and the solution which is suggested is to make an outline. Yet outlines are usually done in terms of larger ideas. Frequently the material for the paper is not broken into small enough segments to permit considering each small part individually. Thus those small parts which should be deleted or expanded are still likely to be overlooked. Extraneous material in a

topic unit is most often recognized when a clause is not a 'similar comment' to those around it and yet does not form a new head which is developed further.

The examples so far have dealt with internal problems of topic unit construction. How the units interrelate and how they compare with paragraphs deals with the units as a whole.

Testimony that native speakers have not only been taught, but that they have learned, the concept that a paragraph develops a single idea appears in the experiment referred to earlier (p.59). The students did recognize blocks of text within paragraphs, and those blocks were very similar to the ones marked out as topic units in the examples in this paper. (See Appendix.)

A teacher, by applying the concept "develops a single idea" to topic units, might then present the notion of paragraph as a contrast, i.e., as a unit which may optionally incorporate several distinct pieces of information which together create another larger 'idea'.

Combining several topic units into a single paragraph will produce what might be called a 'complex paragraph'. To teach such a notion one might begin by contrasting topic sentences and head propositions. It has already been shown (Chapter IV) that the head proposition for a topic unit is not 'what the unit is about', and a summary of a topic unit needs to include both the head and a generalization

of the comments. Such a sentence will probably be of a simple sentence with one main clause.

When several units are combined into a paragraph, a topic sentence which suggests that whole may well require a complex sentence and may even require one clause for each topic unit. In example 44 above, a topic sentence for a paragraph with three units was achieved with two clauses: 'It happened that I found myself in London with no money.' Here the first clause, 'it happened', covers the first two topic units which tell 'how it came about that...' Although such a unifying sentence is not always included in a text, it can still be a guide for a writer as to what should be included or omitted.

Creating topic sentences and head propositions will take into consideration the order in which the clauses come in the sentence; for it is the first clause, regardless of its grammatical form, that is the discourse topic proposition of a topic unit. Even if the form is altered, when the content remains substantially the same, the basis for cohesive ties remains almost unchanged. Compare:

- 50. A. When I was 8 years old
my grandmother came to stay with
us.
- B. I was 8 years old
when my grandmother came to stay with us.
- C. My grandmother came to stay with us when
I was 8 years old.

Thus 50A predicts the same comments for 50B but different comments for 50C. In a similar fashion, a topic sentence

for a paragraph would probably present its clauses in the order in which the units occur in the paragraph.

There is one other area where it may be possible that the structure of topic units could prove helpful: that is the use of clauses that 'look both ways' for the completion in a text. In examples like 51, both 51b and 51c are to be understood as comments on 51a. The fact that 'because' introduces the explanation for 51c does not alter the fact that it is also a comment on 51a.

51. a) I came home late.
 b) Because I had a flat tire.
 c) I was stranded on the highway.

Choosing satisfactory punctuation for such a series is often difficult just because it cannot be done on the basis of the two surrounding clauses alone. Whether 51b is joined to 51a or to 51c will depend on whatever is to come next; for the decision will depend partly on whether or not 51b is part of the head proposition.

How best to make use of topic units does remain to be more carefully worked out, but the implications of these few examples are that teachers may find them an aid to understanding and explaining difficulties for students. Students will probably make use of them only as they receive advice from their teachers.

2. Remaining Questions

There are, of course, many theoretical questions remaining

about discourse topic units as well as about the way this study was done. For the latter, the consequence of the arbitrary definition of a clause still leaves questions about how much should be considered a comment. That is, can a reduced clause, one that appears only as a prepositional phrase, for example, be considered a comment?

There are also questions about verbs which relate to speech acts. Is it possible that certain verbs, for example those that control direct and indirect discourse, 'say', 'tell', etc., should be considered comments at a different level from their following quotations? Or are quotations always just embedded topic units in the way they have been handled in this paper?

Is it possible to describe any relationships or special types of progress from one topic unit to the next? For instance, can the same head proposition be repeated in order to frame comments of a different type of similarity in a new unit? Can a topic proposition be 'split' to form a different, less general new topic? Can a topic unit form a base for an underlying abstraction in the topic unit?

The questions asked in the Introduction, however, do find answers here. To the first, "What constitutes a discourse topic?", the answer is that a proposition rather than a noun phrase is the discourse topic. Topic is identified because it comes first in its unit and because its comments exhibit 'relevance' to it. A topic is

maintained only so long as the comments which follow it fit within its framing proposition and are similar to one another. Last, the status of subordinate clauses in terms of discourse is assumed to be on a par with main clauses, for subordinate clauses are the syntactic means of integrating several propositions into a single sentence while still leaving each one free to furnish its independent comment. The over-all question of what the unit is about is nowhere answered explicitly. That answer is supplied by an abstraction, a summary of the head and its comments.

3. Summary

From a theoretical point of view, it is interesting that the topic-and-comment style of organization found in the spoken discourse of adults as well as children and in single written sentences is also found in longer written texts in English. It is also interesting that the discourse topic proposition exhibits the characteristics ascribed to topics of other languages where a topic may precede a grammatical subject in the same sentence. That topic units are described with single clause constituents is significant because it presents the structure of discourse in a way that accommodates recent psychological theories for comprehension of discourse and for its storage in memory. From a practical point of view this description suggests that a writer plans the clause structure of a

sentence in terms of the topical requirements of his message and the necessary ordering of the comments.

All of these things are possible because of the clause-structured nature of topic units and because formal ties exist between a head and its comments. The result for English planned written discourse is that topic units exhibit a structure whose rules can be precisely described. That is to say, a topic unit constitutes a unit of form beyond the sentence.

APPENDIX

As a means of checking whether English speakers do recognize any such divisions of text as topic units, an experiment was conducted with a class of sixteen students at the University of Hawaii. They were asked to mark paragraph indentations on two texts, the same ones displayed in Examples 29 and 44 in this paper.

It was anticipated that the boundaries of topic units and embedded topic units would invite paragraph indentations and that sentences with marked themes would also attract indentation marks. And in fact, that was true.

The students seemed to recognize paragraphs in terms of the development of a single idea. Thus sentences which contain the transition from one topic unit to the next were the ones most frequently chosen to begin or end a "paragraph" on their papers.

In example 29, sentence 4 incorporates the beginning of a new topic unit. Although the author did not put a paragraph here, ten of the sixteen students did indicate a new paragraph at its beginning, while four marked one at its end. That is, fourteen felt that this sentence did belong at a paragraph break.

For the final sentence of Para. 1, S7, the one that also marks the shift to topic unit III, nine students showed

a new paragraph at the beginning; and four placed it at the end. One student even intruded a new beginning for a paragraph after the phrase "his face turned" which indicates even more strongly that he noticed a shift in subject matter at that point and based his decision solely on that. Perhaps these students did not want to include the apparently extraneous idea of the final zero clause within the paragraph. Again fourteen students chose the same sentence as transitional, and again the problem of deciding where to break on the basis of whole sentences seems to have contributed to the variety of choices.

For the other text, nine people divided the first paragraph into two, each containing one sentence. The possibility of an overriding generalization does not seem to have suggested itself. Instead, separate semantic content within each sentence must have provided justification for two paragraphs.

Thirteen students agreed with the author about the starting point of the second paragraph. Of those who did not agree, one student put the beginning at the previous clause (within paragraph 1), "I was content"; one put it before the second clause of the paragraph, "I was accustomed," and a third put it after the phrase "after the afternoon board." Thus all sixteen papers indicated the break within one clause of the topic unit line and the author's paragraph.

In paragraph 2, the two sentences with marked themes

drew four and three indentation marks respectively which indicates, as expected, that such phrases have drawing power for paragraph beginnings.

While topic units II and III in this paragraph treat content that is clearly distinct from the beginning section, the interlocking style which integrates II leaves III as the more conspicuous place to begin a new paragraph. Ten students put a slash mark at the beginning of topic unit III, while five put one before the preceding sentence. In other words, the students did want to break the paragraph somewhere after the first topic unit and before the third one. Again the students seem to be choosing on the basis of single-idea development rather than on the basis of a generalized unity derived from abstraction.

In general the results seem to suggest a recognition of topic unit limits misunderstood as paragraph boundaries.

Read the entire page once first

- I. Read the following text and where you think a new paragraph should begin, put //.
- II. If you think there really should be a new paragraph starting in the middle of some sentence, put ///.

the old woman and her daughter were sitting on the porch when mr. shiftlet came up the road for the first time the old woman slid to the edge of her chair and leaned forward shading her eyes from the piercing sunset with her hand the daughter could not see far in front of her and continued to play with her fingers although the old woman lived in this desolate spot with only her daughter and had never seen mr shiftlet before she could tell even from a distance that he was a tramp and no one to be afraid of his left coat sleeve was folded up to show there was only half an arm in it and his gaunt figure listed slightly to the side as if the breeze were pushing him he had on a black town suit and a brown felt hat that was turned up in the front and down in the back and he carried a tin tool box by a handle he came on at an amble up her road his face turned toward the sun which appeared to be balancing itself on the peak of a small mountain the old woman didn't change her position until he was almost into her yard then she rose with one hand fisted on her hip the daughter a large girl in a short blue organdy dress saw him all at once and jumped up and began to stamp and point and make excited speechless sounds

-Sean O'Connor
 "The Life You Save May Be
 Your Own"

Read the entire page once first

- I. Read the following page and where you think a new paragraph should begin, put //.
- II. If you think there really should be a new paragraph starting in the middle of some sentence, put ///.

when I was 27 years old I was a mining broker's clerk in San Francisco and an expert in all the details of stock traffic I was alone in all the world and had nothing to depend upon but my wits and a clean reputation but these were setting my feet in the road to eventual fortune and I was content with the prospect my time was my own after the afternoon board Saturdays and I was accustomed to put it in on a little sailboat on the bay one day I ventured too far and was carried out to sea just at nightfall when hope was about gone I was picked up by a small brig which was bound for London it was a long and stormy voyage and they made me work my passage without pay as a common sailor when I stepped ashore in London my clothes were ragged and shabby and I had only a dollar in my pocket this money fed me and sheltered me 24 hours during the next 24 I went without food and shelter

-Mark Twain
"The £1,000,000 Bank Note

The results of the student survey are exhibited in
Tables 1 and 2.

Table 1: Example 29

Sentence	No. of // preceding the sentence	No. of // elsewhere in the sentence. Preceding word included.
1	0	1 road
2	0	0
3	0	0
4	10	1 before
5	4	0
6	2	0
7	9	1 road
8	4	0
9	3	0

Table 2: Example 44

Sentence	No. of // preceding the sentence	No. of // elsewhere in the sentence. Preceding word included.
1	0	0
2	9	1 fortune and
3	13	2 my own; Saturdays and
4	4	0
5	3	1 gone
6	5	0
7	10	1 shabby and
8	0	0
9	1	0

FOOTNOTES

¹Halliday (1967, 209) uses the word 'theme' with two different meanings, and it is 'theme' as initial element in a clause that is being used in this paper. The other use refers to 'theme' as a 'textual' function. In spite of the word 'textual', Halliday confines his study to single sentences, and for the most part restricts his consideration of theme to single clauses.

²Halliday (1976, 23) discusses "register" as a second characteristic that works along with cohesion to produce text. Register, however, is a much more general notion than 'frame of reference', for it includes the overall tone, the appropriateness to the situation, which may be expressed somewhere beyond the narrow limits of a topic unit.

³At first glance this generalization seems similar to what Daneš (1974) of the Prague School has seen as an unspecified "hyper-theme" which provides a connection between the themes of several sentences in a paragraph. The unstated hyper-theme for Daneš, however, is not what is intended in example 18. Here the generalization is derived from the predicates of the comment clauses, not from an initial theme of a clause nor from a noun phrase used as a 'topic' in a succession of sentences.

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